

UltraWAVE X100

GSM Mobile Switching Center



UltraWAVE X100, UltraWAVE BSC and UltraWAVE BTS work hand-in-hand to reduce the total cost of network ownership, providing a network growth path for existing and future customers, and expand the addressable markets of ADC Mobile Network Solutions GSM products. They serve as the flagship GSM product line for ADC.

The UltraWAVE X100 is a large GSM mobile switch with capacity of up to 256 E1 or T1 ports and 100,000 subscribers. It provides a compact and cost effective platform, which helps lower the cost of network ownership. The X100 builds on ADC's proven GSM architecture by providing a high capacity switching platform which provides economies of scale and broadens the addressable market. The X100 provides operators with a wide range of features to grow their businesses and includes basic telephony services, audio announcements, built-in prepaid, voicemail and SMSC value added services.

Key MSC Features

- HLR capacity - 100,000
- VLR capacity - 100,000
- SS7 linksets - 128
- Redundancy - traffic load sharing
- Route redundancy
- 2 +1 power redundancy

SPEC SHEET



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The UltraWAVE X100 digital wireless switch is a cost effective and easy to deploy advanced digital switching platform based on the GSM standard. The dual platform redundant architecture functions as a mobile switching center (MSC) with built-in HLR/VLR with full subscriber mobility management, GMSC, GPRS and IN support. The UltraWAVE X100 is managed by the ADC management system, UltraVIEW OMC, which also manages the UltraWAVE BSC and UltraWAVE BTS products.

UltraWAVE X100 provides switching and mobility management functions for mobile stations within its serving area. It supports MSC, VLR and HLR switch functions, audio announcements and optional services such as IN prepaid, SMSC, AuC, EIR, and VMS. The central switching unit (CSU) is a high capacity TDM and signaling message transport matrix providing multiple A-Interface and PSTN trunks. Each redundant CSU supports up to 16 eight port E1 or T1 cards providing a total switching capacity of 2 x 128 E1 or T1 ports. The platform performs mobility management, call management, STP, SSF, MAP and BSSMAP functions, conducts performance measurements, and produces call detail records.

Features:

- Call forwarding (conditional, unconditional), call waiting, call hold, call transfer
- Calling party based routing, intelligent call routing
- Caller ID, CLIR/CLIP
- E.164 support
- Call intercept
- Dual processor redundancy
- DTMF tones
- Generates GSM & CAMEL compliant CDR records
- MAP-C, MAP-D, MAP-E
- GTT translations, STP functionality
- Support for SMS (MT/MO)
- Implicit IMSI detach and VLR purge
- GPRS support (Gr over SS7)
- Optional built-in IN prepaid functions (CAMEL based SSF)
- Optional built-in SMSC, AuC and EIR functions
- Optional voicemail platforms

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Specifications

Interface Capacity: 2500 Erlangs @ 0.1% GoS and 25 mErlang per subscriber1
Busy Hour Call Attempts: 200,000 total
E1 Ports: 256 (128 + 128)
Trunk Groups: 256

INTERFACES

BSC Link: GSM Compliant A Interface; GSM Spec. 04.08, 08.08; ANSI 1992 CCITT 1988, 1992; BSSMAP, GSM 08.08 DTAP, GSM 04.07, 04.08, SCCP & MTP GSM spec 08.06

PSTN: ITU ISUP, ITU ISDN PRI, R2 MFC2, CAMEL Phase II/III

Operations and Maintenance Link: Ethernet; SNMP based

Transmission: Eight port G7.03 compliant E1 75/120 Ohm;

Eight port compliant T1 100 Ohm

Ethernet: 10/100 Mbps Ethernet, RJ-45 connector

POWER SUPPLY

Input Voltage: -48 VDC

Power Consumption: 400 Watts (128 + 128 ports)

MECHANICAL

Rack Mount: 42U cabinet

Dimensions (WxDxH): 80 x 60 x 220 cm (31.5 x 23.6 x 86.6 inches)

Weight: 163 kg (360 lbs)

OPERATING ENVIRONMENT

Temperature: 10° to 45° C (50° to 113° F)

Humidity (non-condensing): 40% to 80%

COMPLIANCE

EN5022: 1994/A1: 1995/A2: 1997; EN300 386V1.2.1 (2000-03)
(TELECOM CTRS); CE APPROVED TUV: 72040392 01; R50035793;
CC50035977; AE500359780001

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